

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the present application.

Listing of the Claims:

Claims 1-8 (Canceled).

9. (Currently Amended) A control unit for in a vehicle, comprising:

an integrated circuit;

a converter having an electrical isolation from a main electrical system of the vehicle, wherein the converter is configured for supplying an electrically isolated supply voltage and an electrically isolated internal ground power to the integrated circuit ~~at least one component;~~ and

at least one coupling element having an electrical isolation from the main electrical system, wherein the coupling element is configured to transmit data ~~be connectable~~ to the integrated circuit ~~at least one component, the coupling element being used for data transmission; and~~

~~a ground connection assigned to the at least one component.~~

10. (Previously Presented) The control unit as recited in claim 9, wherein the converter includes a transformer for electrical isolation, a DC/AC voltage converter being provided on a primary side, and a rectifier being provided on a secondary side.

11. (Previously Presented) The control unit as recited in claim 10, wherein the DC/AC voltage converter includes an oscillator.

12. (Previously Presented) The control unit as recited in claim 10, wherein the DC/AC voltage converter includes a chopper.

13. (Previously Presented) The control unit as recited in claim 9, wherein the at least one coupling element is an optocoupler.

14. (Previously Presented) The control unit as recited in claim 9, wherein the converter is connected to at least one energy store which runs the converter in case a power supply is disconnected.

15. (Currently Amended) The control unit as recited in claim 9, wherein the integrated circuit ~~at least one component~~ is an ignition circuit control for a restraint device.

16. (Currently Amended) The control unit as recited in claim 9, wherein the integrated circuit includes ~~at least one component~~ is electronics of the control unit.

17. (New) The control unit of claim 9, further comprising:
a second converter having input terminals configured to receive a vehicle battery voltage, and output terminals configured to provide a second supply voltage;
an electronics component configured to receive the second supply voltage; and
wherein the coupling element is configured to exchange data between the integrated circuit and the electronics component in a manner in which the integrated circuit remains electrically isolated from the electronics component.

18. (New) A vehicle control system having the control unit of claim 9, wherein the converter is configured to receive a vehicle battery voltage in response to a closing of an ignition lock switch, and is configured to generate the supply voltage based on the vehicle battery voltage.

19. (New) A vehicle control unit, comprising:
an integrated circuit;
a first dc-to-dc converter having input terminals configured to receive a vehicle battery voltage and a vehicle ground, and output terminals configured to provide a first internal supply voltage and an internal ground to the integrated circuit, wherein the output terminals are electrically isolated from any vehicle components carrying the vehicle battery voltage and any components carrying the vehicle ground;

a second dc-to-dc converter having input terminals configured to receive the vehicle battery voltage, and output terminals configured to provide a second internal supply voltage;
an electronics component configured to receive the second internal supply voltage;
and

a coupling element configured to exchange data between the integrated circuit and the electronics component in a manner in which the integrated circuit remains electrically isolated from the electronics component.

20. (New) A vehicle control system having the vehicle control unit of claim 19, wherein the first dc-to-dc converter is configured to receive the vehicle battery voltage in response to a closing of an ignition lock switch, and to generate the first internal supply voltage based on the vehicle battery voltage.

21. (New) A vehicle airbag control system, comprising:
an integrated circuit;

a dc-to-dc converter having input terminals configured to receive a vehicle battery voltage and a vehicle ground, and output terminals configured to provide a first internal supply voltage and an internal ground to the integrated circuit, wherein the output terminals are electrically isolated from any vehicle components carrying the vehicle battery voltage and any components carrying the vehicle ground,

wherein the dc-to-dc converter is configured to receive the vehicle battery voltage in response to a closing of an ignition lock switch; and

a coupling element configured to transmit data to the integrated circuit in a manner in which the integrated circuit remains electrically isolated from a component at another end of the data transmission.

22. (New) The vehicle airbag control system of claim 21, further comprising:

a second dc-to-dc converter having input terminals configured to receive the vehicle battery voltage, and output terminals configured to provide a second internal supply voltage;
an electronics component configured to receive the second internal supply voltage;
and

a coupling element configured to exchange data between the integrated circuit and the electronics component in a manner in which the integrated circuit remains electrically isolated from the electronics component.